



BOARD OF COMMISSIONERS

1 S. Main St., 9th Floor
Mount Clemens, Michigan 48043
586-469-5125 FAX 586-469-5993
macombcountymi.gov/boardofcommissioners

AD HOC COMMITTEE ON COUNTYWIDE ENERGY CONSERVATION

WEDNESDAY, APRIL 16, 2008

AGENDA

1. Call to Order
2. Pledge of Allegiance
3. Adoption of Agenda
4. Public Participation
5. Presentation by Gary Dillon, President, Dillon Energy Services, Inc. (mailed)
6. New Business
7. Public Participation
8. Adjournment

MEMBERS: DiMaria-Chair, Bruley, DeSaele and Crouchman (ex-officio)

MACOMB COUNTY BOARD OF COMMISSIONERS

Andrey Duzyj - District 1
Marvin E. Sauger - District 2
Phillip A. DiMaria - District 3
Jon M. Switalski - District 4
Susan L. Doherty - District 5

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Leon Drolet - District 26

DILLON ENERGY SERVICES INC.

21312 Mack Avenue
Grosse Pointe Woods, MI 48236
313.885.4299 Fax 313.885.4720

March 10, 2008

Phillip A. DiMaria
Macomb County Board of Commissioners
1 S. Main St.
Administration Building—9th Floor
Mount Clemens, MI 48043

Dear Phillip,

I have enclosed some information on the services we can provide for Macomb County. Included are overviews of services offered, a draft contract for an energy audit, and before and after photos of a gymnasium we recently retrofitted in a local school.

We can also help with water conservation, and would be happy to discuss this opportunity further. For example, the savings potential for sinks and toilets is 25%.

We look forward to speaking Friday to set up a time to meet next week and help you identify and evaluate all of the areas where savings can be achieved.

Sincerely,

Handwritten signature of Gary Dillon in black ink, with the initials "SD" in parentheses at the end.

Gary Dillon
President

Handwritten signature of Shaun Dillon in black ink, featuring a stylized, flowing script.

Shaun Dillon
Project Manager



Dillon Energy Services Inc.

21312 Mack Avenue
Grosse Pointe Woods, MI 48236
Phone 313.885.4299 Fax 313.885.4720
garydillon@dillonenergy.com

Lighting Upgrades

Benefits

- Reduce Energy Use
- Save on Electric Bills
- Environmentally-Friendly and Energy-Efficient
- Improve Light Levels with More Natural Light
- Quick Payback, often 1-3 years
- Often Increases Productivity

We can offer turnkey retrofits or simply audit your building and sell material

Linear Fluorescent: T5 and T8 lamps in 2x4, 2x2, 1x4, 1x8 Fixtures

- Up to 65% wattage reduction
- Higher Color Rendering Index, closer to natural light
- Higher light output
- Electronic ballasts are free of buzzing, humming, and flickering

Compact Fluorescent Lamps

- 75% typical wattage reduction
- Range of color temperatures to suit every use, from warm white to cool white
- Array of shapes for every application: springlamps, A19 lamps, Floodlamps, PAR Reflector lamps, Globes, Torpedoes, Flame Tips, and more
- Dimmable lamps available

LED

- Brilliant light output from very low wattage
- Available for a variety of uses, from 20W LED Loading Dock Light to decorative lamps under 1 W
- Xmas Lights: 77.5% wattage reduction, 5-year warranty, brilliant colors, low temperature, indoor or outdoor use
- Exit Retrokit: 96% wattage reduction from incandescent—dependable, and pays back in just a few months

Cold Cathode

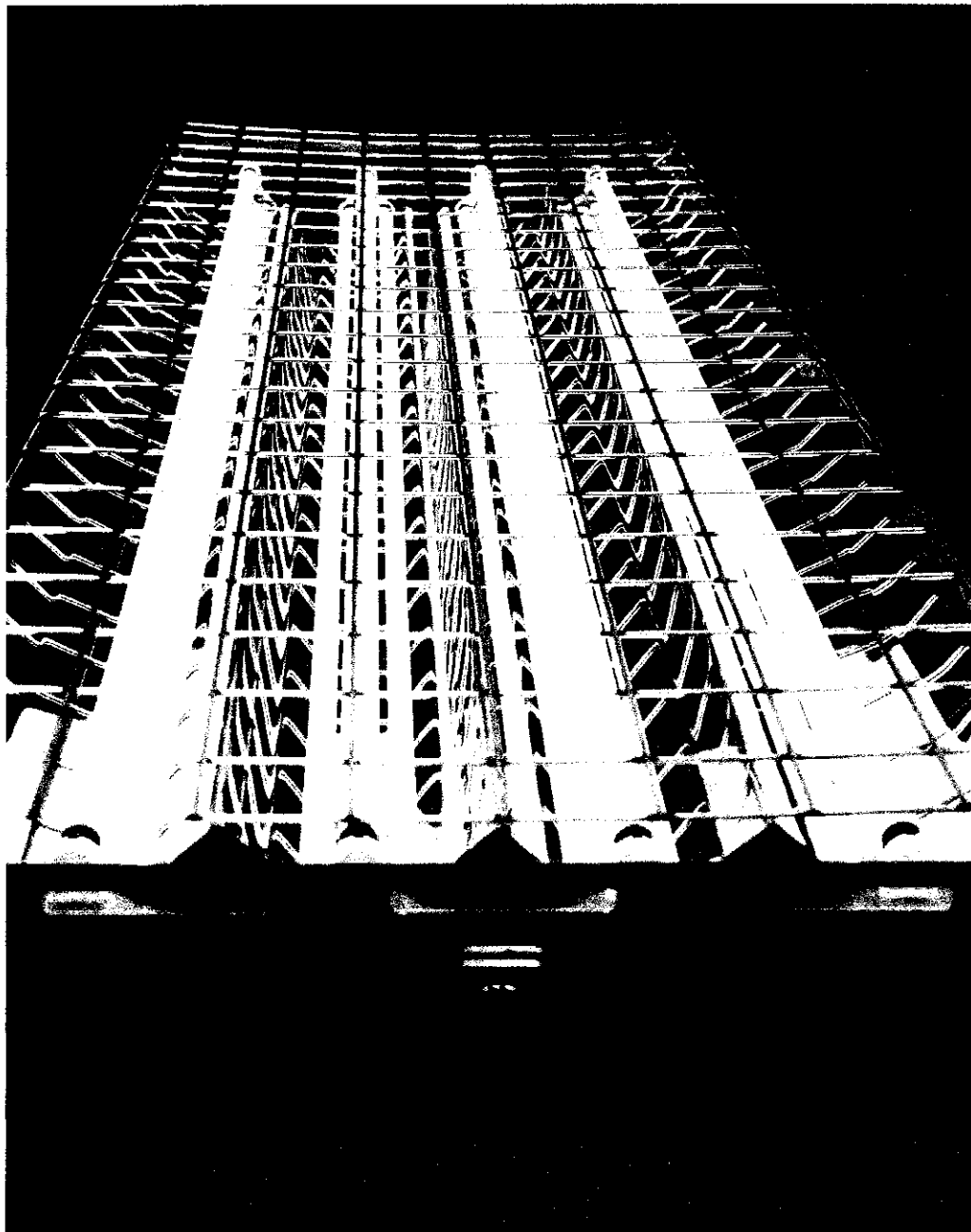
- Dimmable
- Very low wattage (most lamps 2-9 W) great for decorative uses at low cost
- A variety of exciting shapes: flame tips, torpedoes, globes, A19 lamps, floodlamps, PAR reflector lamps, and more



Dillon Energy Services Inc.

High Bay: Alupalight with T5 or T8 lamps

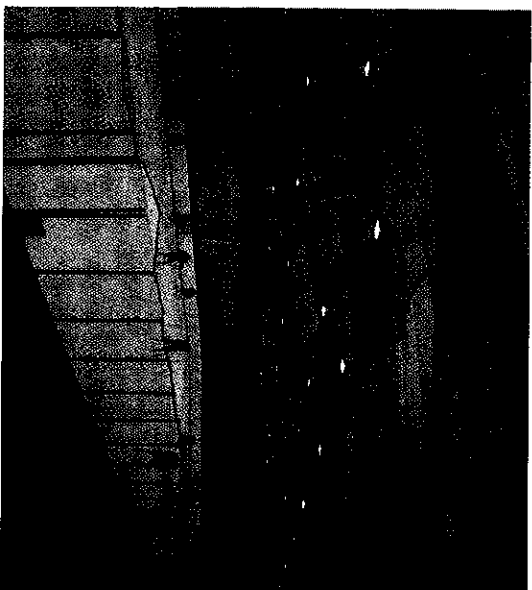
- 50% or higher wattage reduction
- Lower maintenance costs: 20,000-30,000 hour life expectancy for lamps
- Use 10% heat of HID
- Only 4-7% loss of light levels over course of life, compared to 40-60% for HID



4LampT5 with optional wire guard

HID

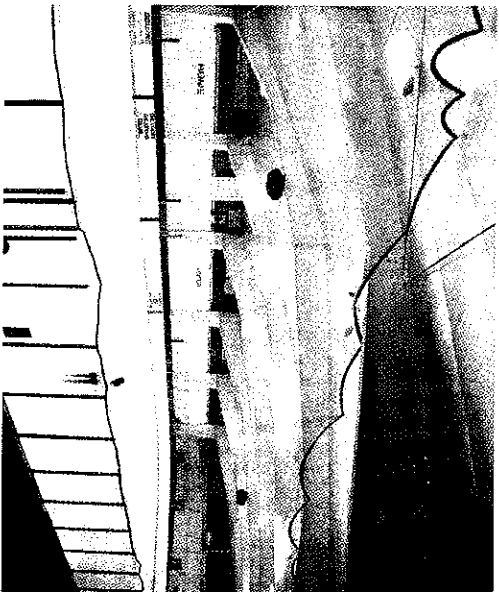
Why settle for some light?



Before: Ice rink with 458W HID System

Fluorescent

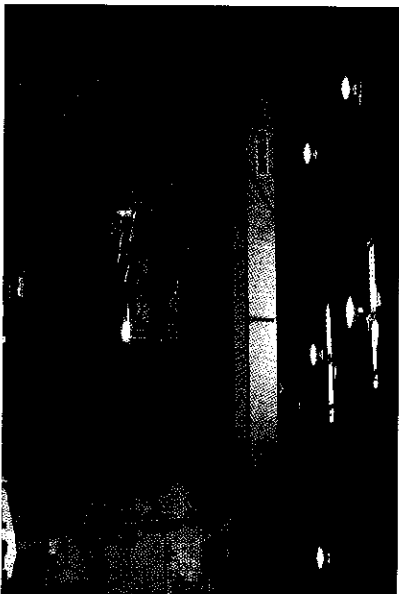
When you can be *Brilliant!*



After: Ice rink with 234W T5 4 Lamps

49%

HID



Before: Industrial Space with 458W and 1080W HIDs



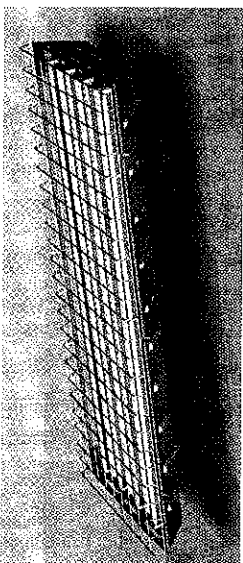
After: Industrial Space 4 Lamp T5 (234W) and
T5 8 Lamp (468W)

ALUMALIGHT

Gary W. Dillon
Office: 313.885.4299
Cell: 313.492.1436

ALUMALIGHT

The Most Versatile and Durable
High Output Fluorescent Fixture on the Market



Shown with 11 gauge wire guard for gymnasium
and ice rink applications

UL Listed

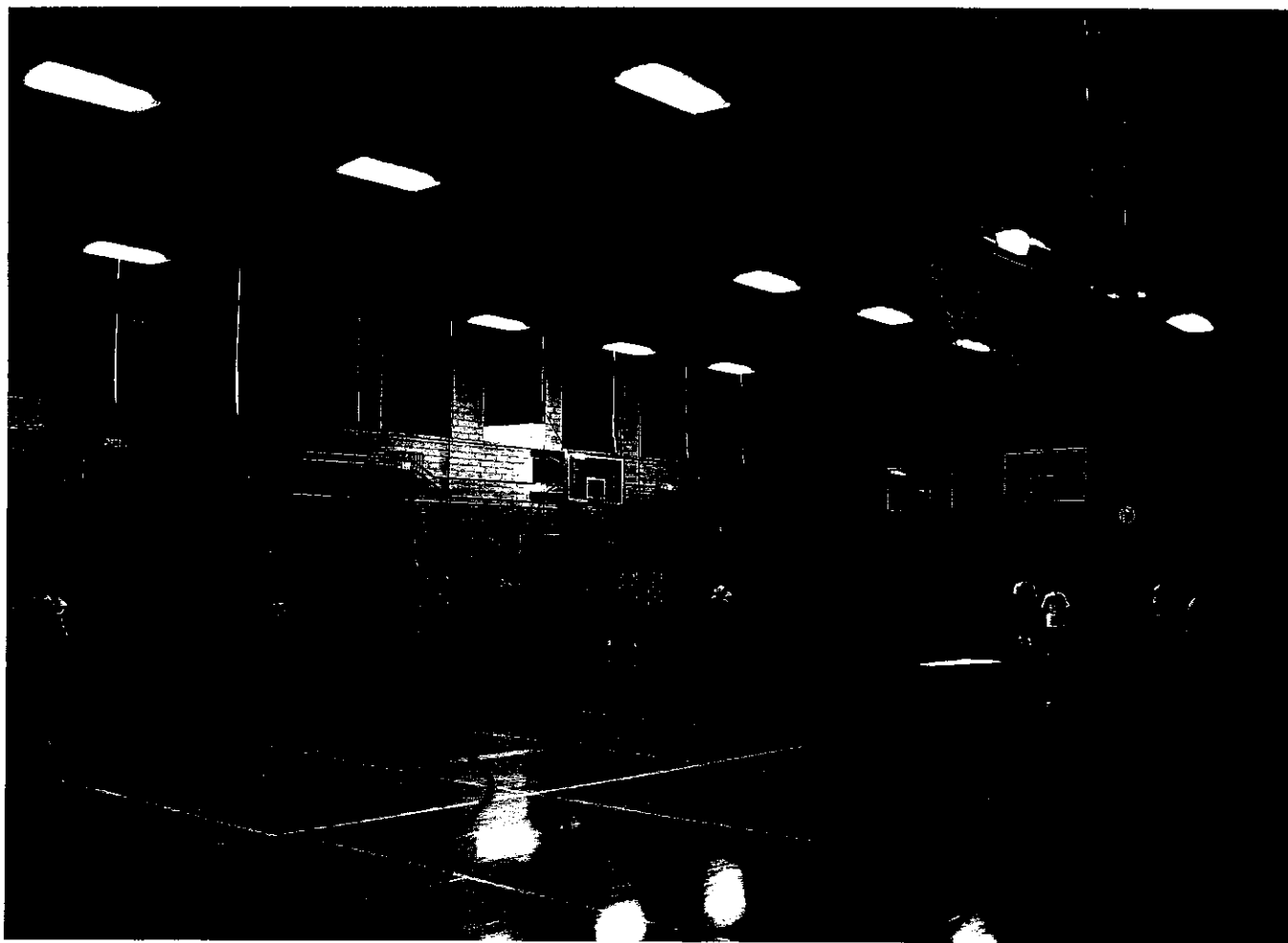
Patent Pending

Stamped and assembled in Michigan

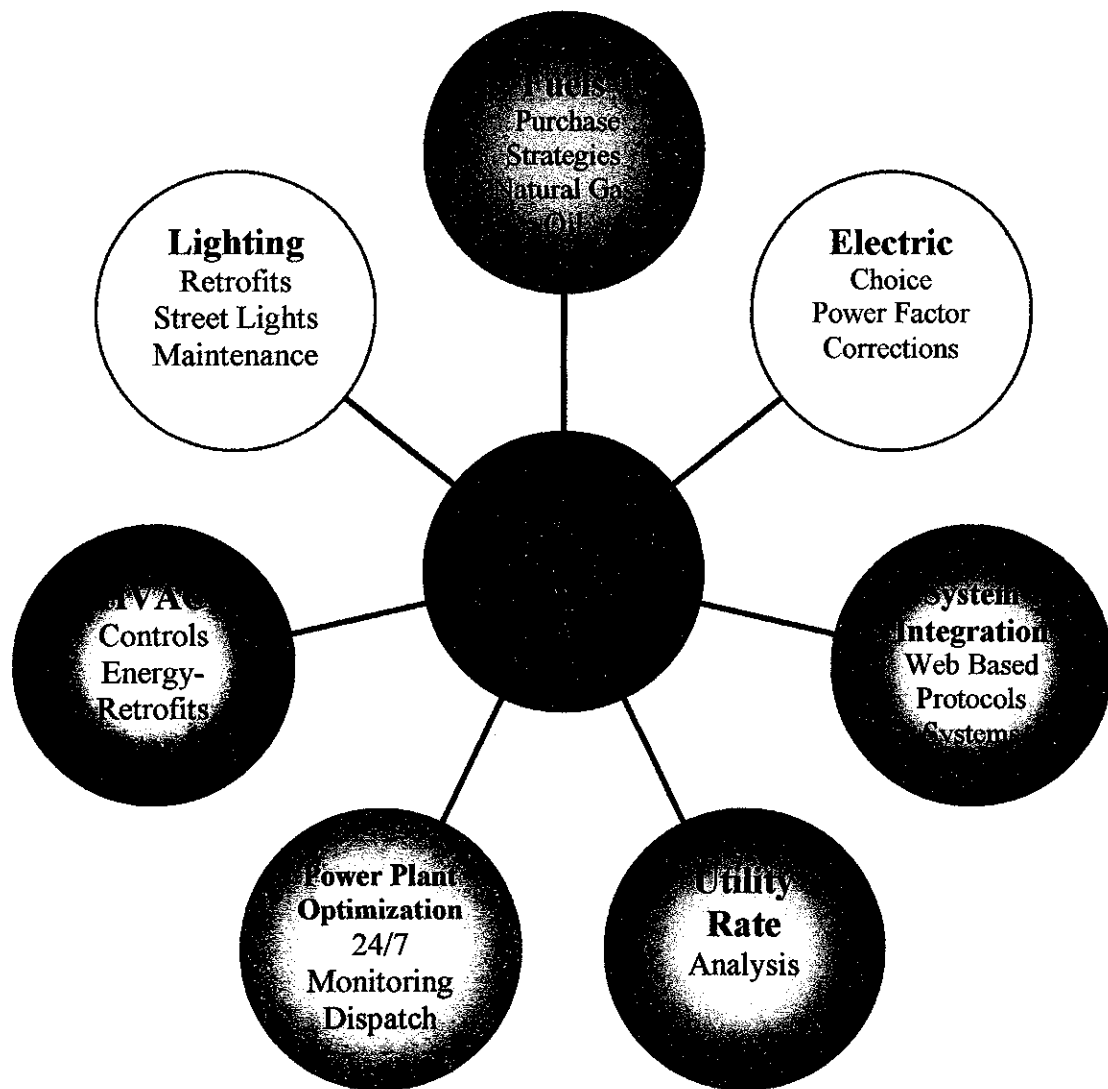
Wide-bodied, well-ventilated and energy-efficient, **Alumalight** is the one and only fixture you need for your T5 4 lamp, T5 6 lamp, T8 4 lamp and T8 6 lamp applications

Instead of buying multiple fixtures, buy only one fixture that fits your current needs and can be adapted to fit your future needs

Save time, money and energy



DILLON ENERGY SERVICES



(313) 885-4299

Dillon Energy Services

Overview

Dillon Energy Services (DES) helps companies achieve greater energy efficiency and save money

Natural Gas

We obtain competitive offers for firm gas delivery from multiple supply sources in Michigan, mid-continent, and Canada.

Upon selecting a supplier we manage all aspects of gas transportation programs on behalf of customers, including:

- Purchasing
- Nominating
- Usage Monitoring
- Utility Bill Monitoring
- Protection from Penalties
- Obtaining Corrections for Billing Errors
- Reporting on Usage and Savings

Lighting

We perform an analysis of existing lighting systems and make recommendations for upgrades, providing:

- Reduced Wattage
- Increased Efficiency
- Savings on Electric Bills
- Improved Natural Light Levels
- Cost and Savings Estimates
- Occupancy Sensors

Energy Management Systems

We evaluate current operating procedures to create awareness of savings opportunities.

- Strategies to Lower Energy Usage
- Lighting & Ventilation Controls
- Monitoring Procedures

Dillon Energy Services

Electricity

We are is licensed as an Alternate Electric Supplier (AES) through the Michigan Public Service Commission.

We provide the following services to our clients:

- Obtaining Price Quotations for Alternative Electric Supply from Multiple Suppliers
- Analysis and Recommendation of Supplier Offers
- Usage Monitoring
- Supplier & Utility Bill Analysis
- Obtaining Corrections for Billing Errors
- Quarterly Reports on Usage & Savings
- Special Reports as Requested
- Monitor Deregulation Issues

Energy-efficient Motors

We conduct an energy analysis of existing motors and make recommendations for improving efficiency.

- Prioritization of Savings Opportunities
- Recommendations for Replacement/Rewinding of Inefficient Motors
- Installation Variable Speed Drives

Energy Management Services

- Implementation of a RFP for Alternative Electric Supply from Multiple Non Affiliated Suppliers
- Natural Gas and Electric Power Purchasing and Management
- Usage Monitoring and Nomination Revisions to Meet Customers' Usage and Storage Needs
- Customized Purchasing Strategies
- Review of Customers' Utility Bills
- Special Management Reports and Case Studies Upon Request
- Representation in Administrative Matters Involving Customers' Local Distribution Companies

Dillon Energy Services

Energy Audit (Draft Contract)

Dillon Energy Services, Inc. and associated professionals agree to perform a full energy audit for the _____ at its facility at _____ in _____, Michigan. Upon completion of the study, _____ will be provided with an indicative proposal to obtain energy savings. Upon acceptance, Dillon will provide _____ with a fee schedule to prepare suitable engineering/specifications to achieve the proposed savings identified in the study. The audit fees will be waived for each area implemented by _____ through the services provided by Dillon Energy or its associated professionals.

The following areas will be reviewed:

Lighting

- Identify and quantify the various types of luminaires currently used in the office and plant areas.
- Propose options for reducing wattage and amperage while maintaining or enhancing light levels with energy efficient scotopically enhanced luminaires.
- Propose opportunities for employing motion and occupancy sensors.

HVAC Systems

- Inspect all HVAC energy consuming equipment and determine condition and operating efficiency. Provide summarized results, profiles and recommendations on each piece of equipment.
- Evaluate exhaust and make-up air requirements and submit recommendations for improvement of efficiency and indoor air quality.
- Review energy management systems and techniques that are being used and evaluate their effectiveness.

Compressed Air System

- Inspect and evaluate the complete compressed air system. Determine the air requirements versus the capability of the existing equipment. Identify problem areas and recommend improvements.

Energy Usage

- Analyze total energy usage and cost. Determine energy use patterns and peak demands. Propose methods to reduce energy waste and increase efficiency.

Dillon Energy Services

Water Usage

- Identify all sources of water usage: sinks, toilets, and industrial processes. Propose solutions to reduce usage.

Electric Motors

- Inspect and evaluate the efficiency of the primary electric motors. Propose solutions to enhance performance and reduce electric usage.
- Identify current start-up procedures and make recommendations to develop an efficient start-up protocol.

Natural Gas

- Evaluate current usage and purchase strategies.
- Make recommendations on future purchases and forward hedging consistent with plant requirements.
- Review existing plant utility contracts and make recommendations if cost saving opportunities is available.

Electricity

- Evaluate current usage and purchase contracts.
- Propose alternate purchase sources if feasible.
- Identify times of usage spikes (peaking) and make recommendations if available for peak shaving.

Submitted:

Dillon Energy Services, Inc

Gary W. Dillon
Its, President

Accepted:

Its, _____